

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/533,241
Source: IFWP
Date Processed by STIC: 8/8/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 08/08/2006

PATENT APPLICATION: US/10/533,241

TIME: 09:31:41

Input Set : F:\56446-20055.01 - Seqlist.txt

Output Set: N:\CRF4\08082006\J533241.raw

4 <110> APPLICANT: CALLEN, Walter
 6 <120> TITLE OF INVENTION: XYLOSE ISOMERASES, NUCLEIC ACIDS ENCODING THEM AND METHODS
 7 FOR MAKING AND USING THEM
 9 <130> FILE REFERENCE: 564462005501
 11 <140> CURRENT APPLICATION NUMBER: US 10/533,241
 C--> 12 <141> CURRENT FILING DATE: 2005-04-29
 14 <150> PRIOR APPLICATION NUMBER: PCT/US03/34008
 15 <151> PRIOR FILING DATE: 2003-10-23
 17 <150> PRIOR APPLICATION NUMBER: US 60/424,649
 18 <151> PRIOR FILING DATE: 2002-11-06
 20 <160> NUMBER OF SEQ ID NOS: 4
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 1335
 26 <212> TYPE: DNA
 27 <213> ORGANISM: unknown
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: obtained from an environmental sample
 32 <400> SEQUENCE: 1
 33 atgactgagt tctttccaga gatcccgaa atacagtttg aaggtaaaga gagcacaat 60
 34 ccatttgctg tcaagttcta cgatccaaac gaggtgatcg acggaaaacc tctcaaggac 120
 35 catctgaagt tctcagttgc attctggcac accttcgtga acgaggggag agatcccttc 180
 36 ggagatccaa cagccgaccg accctggaac aagtacacag accctatgga caaagccttt 240
 37 gcaagggtgg acgccctctt tgaattctgt gaaaaactca acatcgagta cttctgtttt 300
 38 cacgacaggg acatagctcc tgaaggaaag actctgaggg agacaaacaa gatcctggac 360
 39 aaggtcgtgg agaggatcaa agagagaatg aaagacagca acgtaaaact cctctggggg 420
 40 actgccaatc tcttttctca tccaaggtag atgcacggtg cggcgacaac ctgtagtgct 480
 41 gatgtcttcg cctacgcggc agcacagggt aagaaagccc ttgagatcac aaaagagctt 540
 42 ggaggagaag ggtacgtctt ttgggggtga agagaagggt acgagacact cctcaacacg 600
 43 gatctggatc ttgaacttgg aaacctcgct cgcttctca gaatggctgt ggattacgca 660
 44 aagaagatag gtttcaacgg ccagtttctc atcgagccta aaccgaagga accaacgaag 720
 45 catcagtacg acttcgatgt tgcgacggct tacgccttcc tgaagagtca cggctctcgat 780
 46 gagtatttca aattcaacat cgaagogaac catgccacac ttgctgggtca caccttcag 840
 47 cacgaactga ggatggcaag aattcttggg aaactcggca gcatcgacgc gaaccagggg 900
 48 gaccttctgc tcggctggga caccgaccag ttcccaacaa acgtctacga cacaactctt 960
 49 gccatgtatg aagtataaaa agcgggtggg tttaaaaaag gtggtctcaa cttcgatgca 1020
 50 aagggtgagaa gagcttctta caagggtggaa gatctcttca tcgggcacat agcaggaatg 1080
 51 gatactttcg cactcgggtt caaaatagcc cacaaacttg taaaagacgg tgtgttcgac 1140
 52 aagttcattg aagaaaaata caaaagtttc agagagggca tcggaaaaga gatcggtgaa 1200
 53 ggaaaggcag attttgaaaa gctggaagct tatataatag acaaggaaga gatggagctt 1260
 54 ccactctggaa agcaggagta tttggaaagt ctctcaaca gctacatagt gaaaacgata 1320
 55 tccgagttga ggtga 1335
 57 <210> SEQ ID NO: 2

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58 <211> LENGTH: 444
59 <212> TYPE: PRT
60 <213> ORGANISM: unknown
62 <220> FEATURE:
63 <223> OTHER INFORMATION: obtained from an environmental sample
65 <400> SEQUENCE: 2
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67 1 5 10 15
68 Glu Ser Thr Asn Pro Phe Ala Phe Lys Phe Tyr Asp Pro Asn Glu Val
69 20 25 30
70 Ile Asp Gly Lys Pro Leu Lys Asp His Leu Lys Phe Ser Val Ala Phe
71 35 40 45
72 Trp His Thr Phe Val Asn Glu Gly Arg Asp Pro Phe Gly Asp Pro Thr
73 50 55 60
74 Ala Asp Arg Pro Trp Asn Lys Tyr Thr Asp Pro Met Asp Lys Ala Phe
75 65 70 75 80
76 Ala Arg Val Asp Ala Leu Phe Glu Phe Cys Glu Lys Leu Asn Ile Glu
77 85 90 95
78 Tyr Phe Cys Phe His Asp Arg Asp Ile Ala Pro Glu Gly Lys Thr Leu
79 100 105 110
80 Arg Glu Thr Asn Lys Ile Leu Asp Lys Val Val Glu Arg Ile Lys Glu
81 115 120 125
82 Arg Met Lys Asp Ser Asn Val Lys Leu Leu Trp Gly Thr Ala Asn Leu
83 130 135 140
84 Phe Ser His Pro Arg Tyr Met His Gly Ala Ala Thr Thr Cys Ser Ala
85 145 150 155 160
86 Asp Val Phe Ala Tyr Ala Ala Ala Gln Val Lys Lys Ala Leu Glu Ile
87 165 170 175
88 Thr Lys Glu Leu Gly Gly Glu Gly Tyr Val Phe Trp Gly Gly Arg Glu
89 180 185 190
90 Gly Tyr Glu Thr Leu Leu Asn Thr Asp Leu Asp Leu Glu Leu Gly Asn
91 195 200 205
92 Leu Ala Arg Phe Leu Arg Met Ala Val Asp Tyr Ala Lys Lys Ile Gly
93 210 215 220
94 Phe Asn Gly Gln Phe Leu Ile Glu Pro Lys Pro Lys Glu Pro Thr Lys
95 225 230 235 240
96 His Gln Tyr Asp Phe Asp Val Ala Thr Ala Tyr Ala Phe Leu Lys Ser
97 245 250 255
98 His Gly Leu Asp Glu Tyr Phe Lys Phe Asn Ile Glu Ala Asn His Ala
99 260 265 270
100 Thr Leu Ala Gly His Thr Phe Gln His Glu Leu Arg Met Ala Arg Ile
101 275 280 285
102 Leu Gly Lys Leu Gly Ser Ile Asp Ala Asn Gln Gly Asp Leu Leu Leu
103 290 295 300
104 Gly Trp Asp Thr Asp Gln Phe Pro Thr Asn Val Tyr Asp Thr Thr Leu
105 305 310 315 320
106 Ala Met Tyr Glu Val Ile Lys Ala Gly Gly Phe Thr Lys Gly Gly Leu
107 325 330 335
108 Asn Phe Asp Ala Lys Val Arg Arg Ala Ser Tyr Lys Val Glu Asp Leu

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109          340          345          350
110 Phe Ile Gly His Ile Ala Gly Met Asp Thr Phe Ala Leu Gly Phe Lys
111          355          360          365
112 Ile Ala His Lys Leu Val Lys Asp Gly Val Phe Asp Lys Phe Ile Glu
113          370          375          380
114 Glu Lys Tyr Lys Ser Phe Arg Glu Gly Ile Gly Lys Glu Ile Val Glu
115 385          390          395          400
116 Gly Lys Ala Asp Phe Glu Lys Leu Glu Ala Tyr Ile Ile Asp Lys Glu
117          405          410          415
118 Glu Met Glu Leu Pro Ser Gly Lys Gln Glu Tyr Leu Glu Ser Leu Leu
119          420          425          430
120 Asn Ser Tyr Ile Val Lys Thr Ile Ser Glu Leu Arg
121          435          440
123 <210> SEQ ID NO: 3
124 <211> LENGTH: 1335
125 <212> TYPE: DNA
126 <213> ORGANISM: unknown
128 <220> FEATURE:
129 <223> OTHER INFORMATION: obtained from an environmental sample
131 <400> SEQUENCE: 3
132 atgacagaat ttttcccga aattccaaag atacagttcg aagggaagga aagcaataac      60
133 cctcttgccct ttaagttcta cgatccagac gaagtaatcg atggaacc acc tctgaaggac      120
134 catttgaaat tctcgtttgc tttctggcac acttttgtaa acgaaggctc agatcccttc      180
135 ggtgaccca ctgctgaaag accctggaac aagtattcgg atcccatgga caaagcgttt      240
136 gcaagagtgg atgctttatt cgaattctgt gagaaactca atattgaata cttttgtttt      300
137 catgacagag acattgcacc cgaagggaac actctgagag agacgaacaa aattctggac      360
138 aaagttggtg agaaaataaa agaacgaatg aaggaaagca atgtgaaact cttttgggga      420
139 actgccaatc tgtttctaca tctctggtac atgcacggtg cggcaactac ttgcagcgcc      480
140 gatgtttttg catacgctgc tgcacaggtg aaaaaagcgt tggagattac gaaggaactt      540
141 ggaggagaag gatattgttt ttggggcggt agagaaggat acgaaacctt gctcaacacg      600
142 gatttgggat tggaactcga aaacctcgcg aggttctctc gaatggccgt agagtacgca      660
143 aagaagatag gttttgatgg acagttcctc atagaaccca aaccaaaga accacaaaa      720
144 catcagtacg atttcgacgt agcgaccgca tacgccttct tgaaaactca cgatttggat      780
145 gaataacttca agttcaacat agaagctaac cagcgaacac tcgctggtca tactttccag      840
146 catgaattga gaatggccag aatcctcgga aaattcgga gtatcgacgc aaatcaaggc      900
147 gatcttctgt tgggatggga caccgatcaa tttccaacga acgtatacga tacaactctt      960
148 gccatgtacg aggttataaa agcagggggt ttcacaaaag gtggtctcaa cttcgacgcc      1020
149 aaagtgagac gtgcttctta caaggtagag gatctcttca tcgggcatat agtaggaata      1080
150 gacactttcg cactcggttt caagatagcc tacaaacttg taaaagacgg cgtattcgac      1140
151 agattcggtt aggaaaaata cagaagtttc agagaaggta ttggaaaaga aatattggaa      1200
152 ggaaaagcag attttgaaaa actagaatcg tatataatag acaaagaaga tgttgaactt      1260
153 ccatctggaa aacaggagta tcttgaaagt ttgctcaaca gctatatcgt gaagaccgta      1320
154 tcagaactga ggtga
156 <210> SEQ ID NO: 4
157 <211> LENGTH: 444
158 <212> TYPE: PRT
159 <213> ORGANISM: unknown
161 <220> FEATURE:
162 <223> OTHER INFORMATION: obtained from an environmental sample

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164 <400> SEQUENCE: 4

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165 Met Thr Glu Phe Phe Pro Glu Ile Pro Lys Ile Gln Phe Glu Gly Lys
166 1 5 10 15
167 Glu Ser Asn Asn Pro Leu Ala Phe Lys Phe Tyr Asp Pro Asp Glu Val
168 20 25 30
169 Ile Asp Gly Lys Pro Leu Lys Asp His Leu Lys Phe Ser Val Ala Phe
170 35 40 45
171 Trp His Thr Phe Val Asn Glu Gly Arg Asp Pro Phe Gly Asp Pro Thr
172 50 55 60
173 Ala Glu Arg Pro Trp Asn Lys Tyr Ser Asp Pro Met Asp Lys Ala Phe
174 65 70 75 80
175 Ala Arg Val Asp Ala Leu Phe Glu Phe Cys Glu Lys Leu Asn Ile Glu
176 85 90 95
177 Tyr Phe Cys Phe His Asp Arg Asp Ile Ala Pro Glu Gly Lys Thr Leu
178 100 105 110
179 Arg Glu Thr Asn Lys Ile Leu Asp Lys Val Val Glu Lys Ile Lys Glu
180 115 120 125
181 Arg Met Lys Glu Ser Asn Val Lys Leu Leu Trp Gly Thr Ala Asn Leu
182 130 135 140
183 Phe Ser His Pro Arg Tyr Met His Gly Ala Ala Thr Thr Cys Ser Ala
184 145 150 155 160
185 Asp Val Phe Ala Tyr Ala Ala Ala Gln Val Lys Lys Ala Leu Glu Ile
186 165 170 175
187 Thr Lys Glu Leu Gly Gly Glu Gly Tyr Val Phe Trp Gly Gly Arg Glu
188 180 185 190
189 Gly Tyr Glu Thr Leu Leu Asn Thr Asp Leu Gly Leu Glu Leu Glu Asn
190 195 200 205
191 Leu Ala Arg Phe Leu Arg Met Ala Val Glu Tyr Ala Lys Lys Ile Gly
192 210 215 220
193 Phe Asp Gly Gln Phe Leu Ile Glu Pro Lys Pro Lys Glu Pro Thr Lys
194 225 230 235 240
195 His Gln Tyr Asp Phe Asp Val Ala Thr Ala Tyr Ala Phe Leu Lys Thr
196 245 250 255
197 His Asp Leu Asp Glu Tyr Phe Lys Phe Asn Ile Glu Ala Asn His Ala
198 260 265 270
199 Thr Leu Ala Gly His Thr Phe Gln His Glu Leu Arg Met Ala Arg Ile
200 275 280 285
201 Leu Gly Lys Phe Gly Ser Ile Asp Ala Asn Gln Gly Asp Leu Leu Leu
202 290 295 300
203 Gly Trp Asp Thr Asp Gln Phe Pro Thr Asn Val Tyr Asp Thr Thr Leu
204 305 310 315 320
205 Ala Met Tyr Glu Val Ile Lys Ala Gly Gly Phe Thr Lys Gly Gly Leu
206 325 330 335
207 Asn Phe Asp Ala Lys Val Arg Arg Ala Ser Tyr Lys Val Glu Asp Leu
208 340 345 350
209 Phe Ile Gly His Ile Val Gly Ile Asp Thr Phe Ala Leu Gly Phe Lys
210 355 360 365
211 Ile Ala Tyr Lys Leu Val Lys Asp Gly Val Phe Asp Arg Phe Val Glu
212 370 375 380

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213	Glu	Lys	Tyr	Arg	Ser	Phe	Arg	Glu	Gly	Ile	Gly	Lys	Glu	Ile	Leu	Glu
214	385						390				395					400
215	Gly	Lys	Ala	Asp	Phe	Glu	Lys	Leu	Glu	Ser	Tyr	Ile	Ile	Asp	Lys	Glu
216					405					410						415
217	Asp	Val	Glu	Leu	Pro	Ser	Gly	Lys	Gln	Glu	Tyr	Leu	Glu	Ser	Leu	Leu
218				420					425					430		
219	Asn	Ser	Tyr	Ile	Val	Lys	Thr	Val	Ser	Glu	Leu	Arg				
220			435						440							

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/533,241

DATE: 08/08/2006

TIME: 09:31:42

Input Set : F:\56446-20055.01 - Seqlist.txt

Output Set: N:\CRF4\08082006\J533241.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date